

Sea Turtles



2013 SEA TURTLE NESTING SEASON



Sea Turtle Recovery Program

Established 1980

Bill Ahern - M.T.P.H. 13 - 017

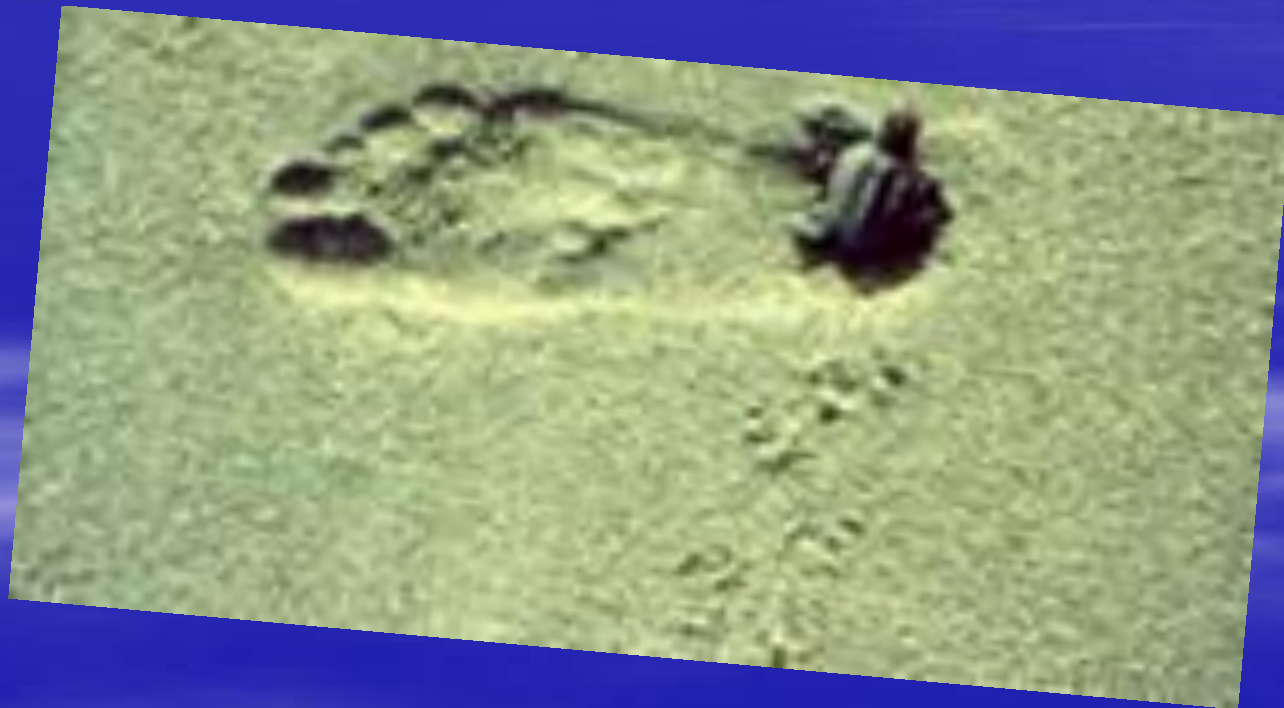
OUR MISSION STATEMENT

We Create Outstanding Natural,
Experiences to Enrich You and To
Enhance Our Community For This and Future Generations.

Modern Man Meets the Ancient Mariner



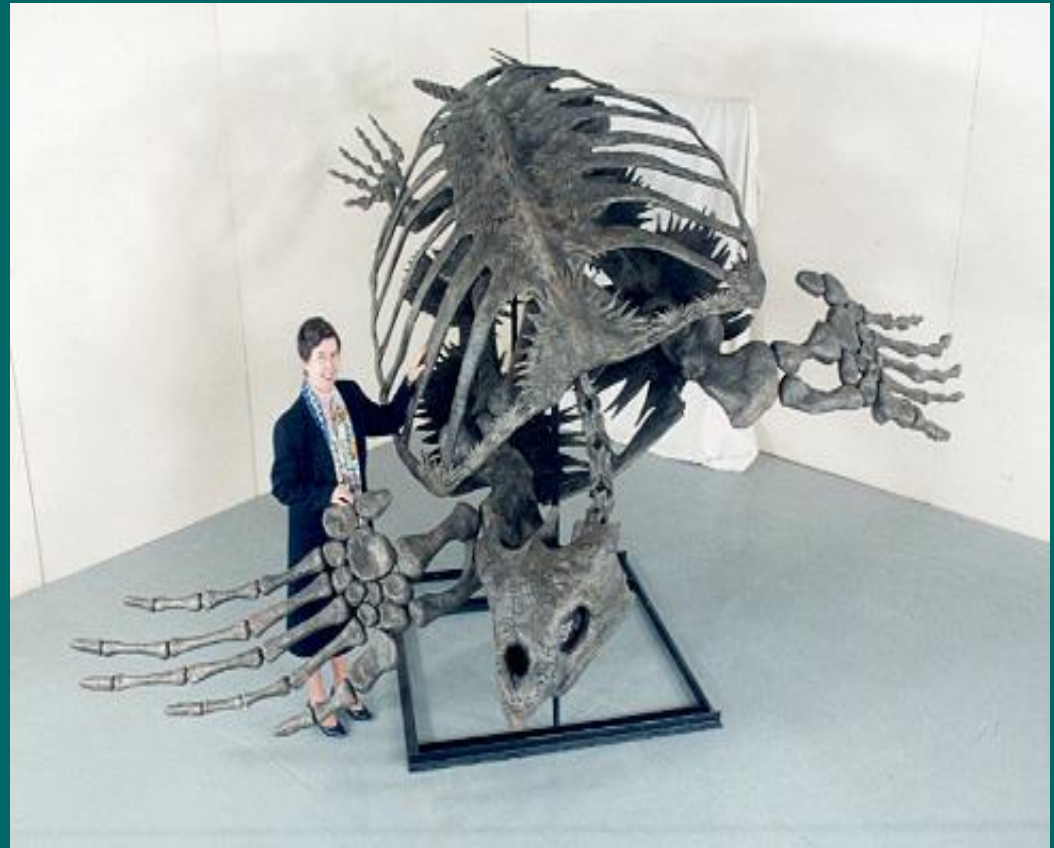
SEA TURTLE AWARENESS FOR THE
CONCERNED BEACH GOER . . .



SEA TURTLES

General Information

- They have been around for 150 million years
- The largest sea turtle to have ever lived was the Archelon.
- It lived over 70 million years ago.



Archelon – ancestor to the modern day sea turtle

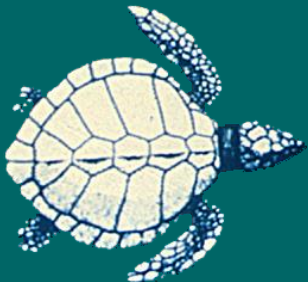
Adaptations to Aquatic Life

- Air breathing – sea turtles must come to the surface to breathe
- Modified feet and shells for swimming



Tortoise – high domed shell
with feet modified for walking

Sea Turtle Species Found in Florida



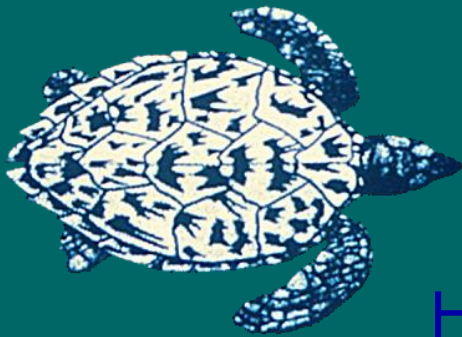
Kemps Ridley
(Endangered)

Kemps Ridley

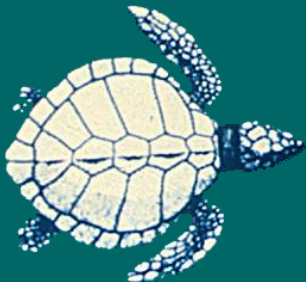


- **Adult Size** - 24-28 inches long
- **Adult Weight** - 80-100 pounds
- **Diet** - crustaceans & mollusks

Sea Turtle Species Found in Florida



Hawksbill
(Endangered)



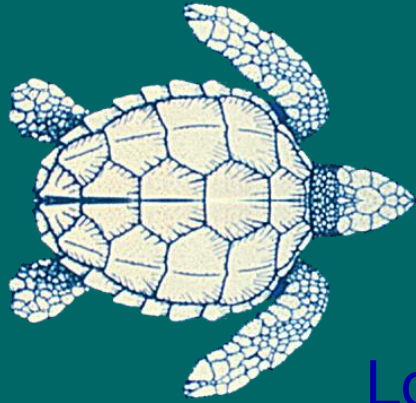
Kemps Ridley
(Endangered)

Hawksbill



- Adult Size - 30-36 inches long
- Adult Weight - 100-150 pounds
- Diet - sponges

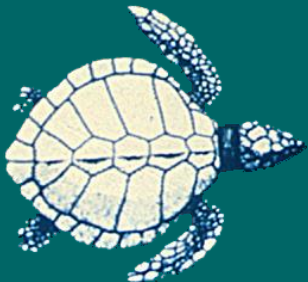
Sea Turtle Species Found in Florida



Loggerhead
(Threatened)



Hawksbill
(Endangered)



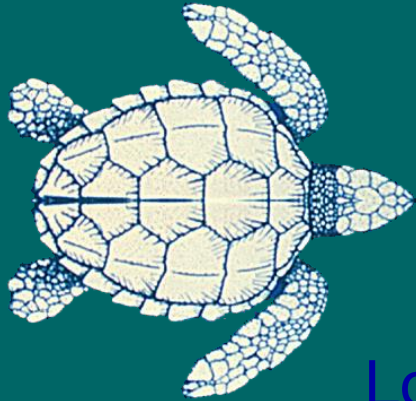
Kemps Ridley
(Endangered)

Loggerhead

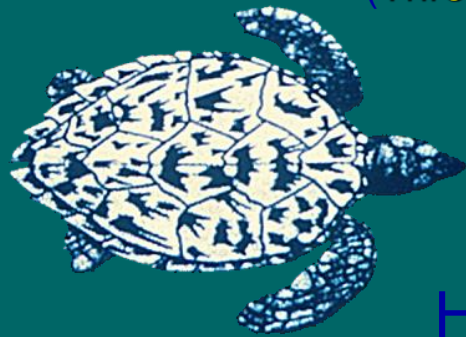


- Adult Size - 32-41 in. long
- Adult Weight - 200-300 lbs.
- Diet - crustaceans & mollusks

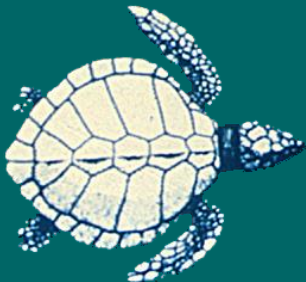
Sea Turtle Species Found in Florida



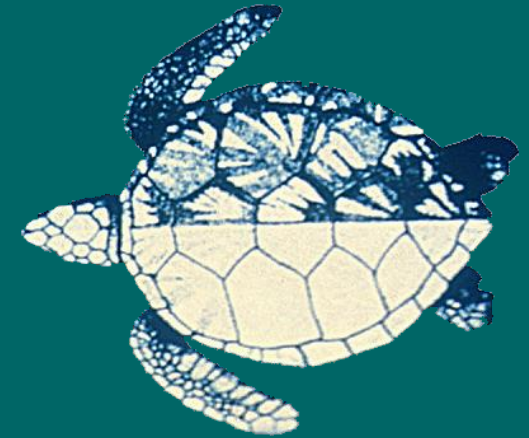
Loggerhead
(Threatened)



Hawksbill
(Endangered)



Kemps Ridley
(Endangered)



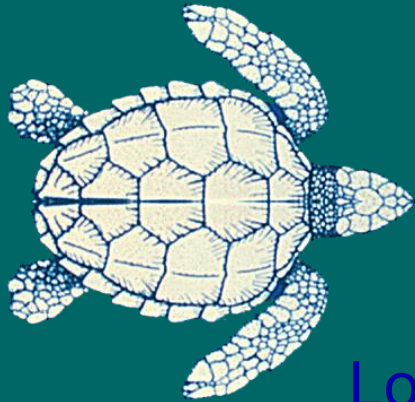
Green
(Endangered)

Green

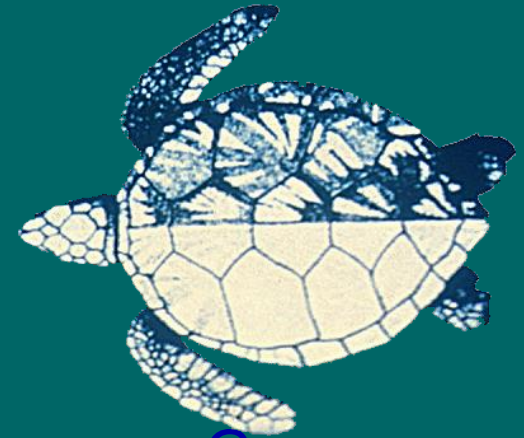
- Adult Size - 38-42 inches long
- Adult Weight - 250-350 pounds
- Diet - marine grasses & algae



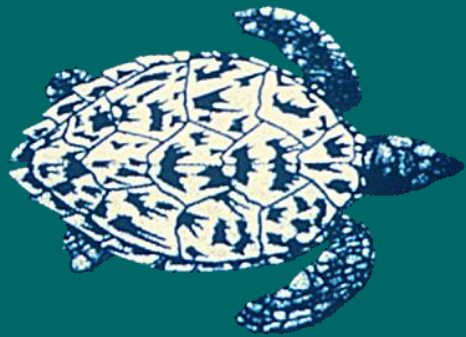
Sea Turtle Species Found in Florida



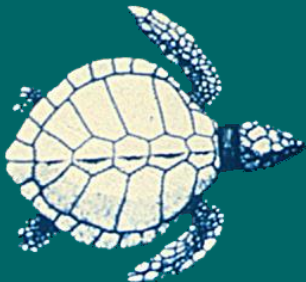
Loggerhead
(Threatened)



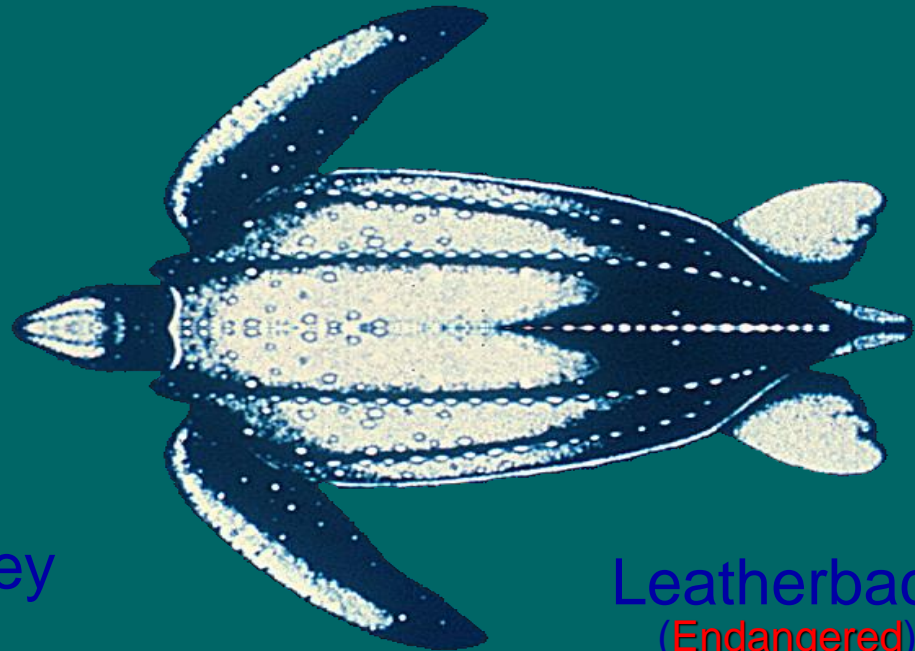
Green
(Endangered)



Hawksbill
(Endangered)



Kemp's Ridley
(Endangered)



Leatherback
(Endangered)

Leatherback



- Adult Size - 6-8 feet long
- Adult Weight - 700-1800 pounds
- Diet - jellyfish

WHERE ARE SEA TURTLES FOUND IN FLORIDA?

- Greens, Loggerheads, Hawksbills, and Kemp's Ridleys are found in the coastal waters of Florida.
- Greens, Loggerheads, and Leatherbacks nest on Florida's beaches.

Mating Adults



TURTLE TRACKS

- 45th
street
- Miami
Beach



■ Obstacles on the Beach



TURTLE TRACKS

- Leatherback Nest
- Bal Harbour
- Beach Cleaning
- Surveys Start at Dawn



TURTLE TRACKS

- Permitted staff
Member Selina
Mills, Documents a
Leatherback Track
- Even tracks
- Tail drag
- W I D E Tracks



TURTLE TRACKS

- Green Sea Turtle
- Tail Drag
- Even Tracks
- 4 Foot Wide

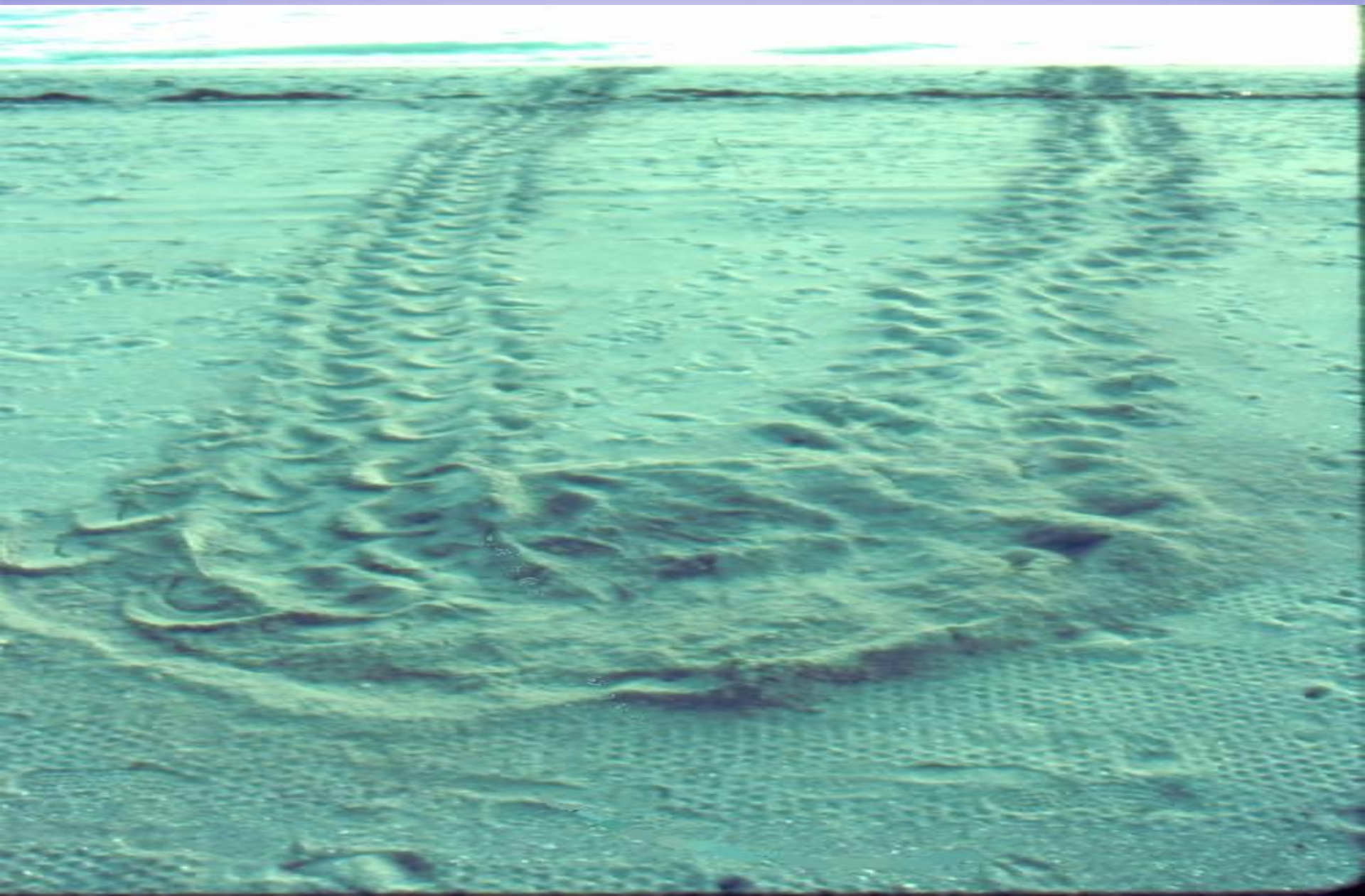


NEST AT HAULOVER BEACH

- Green sea turtles have plenty disturbed ,powder like sand covering up the nest site
- Nest depth 2 feet to 2 .5 feet deep



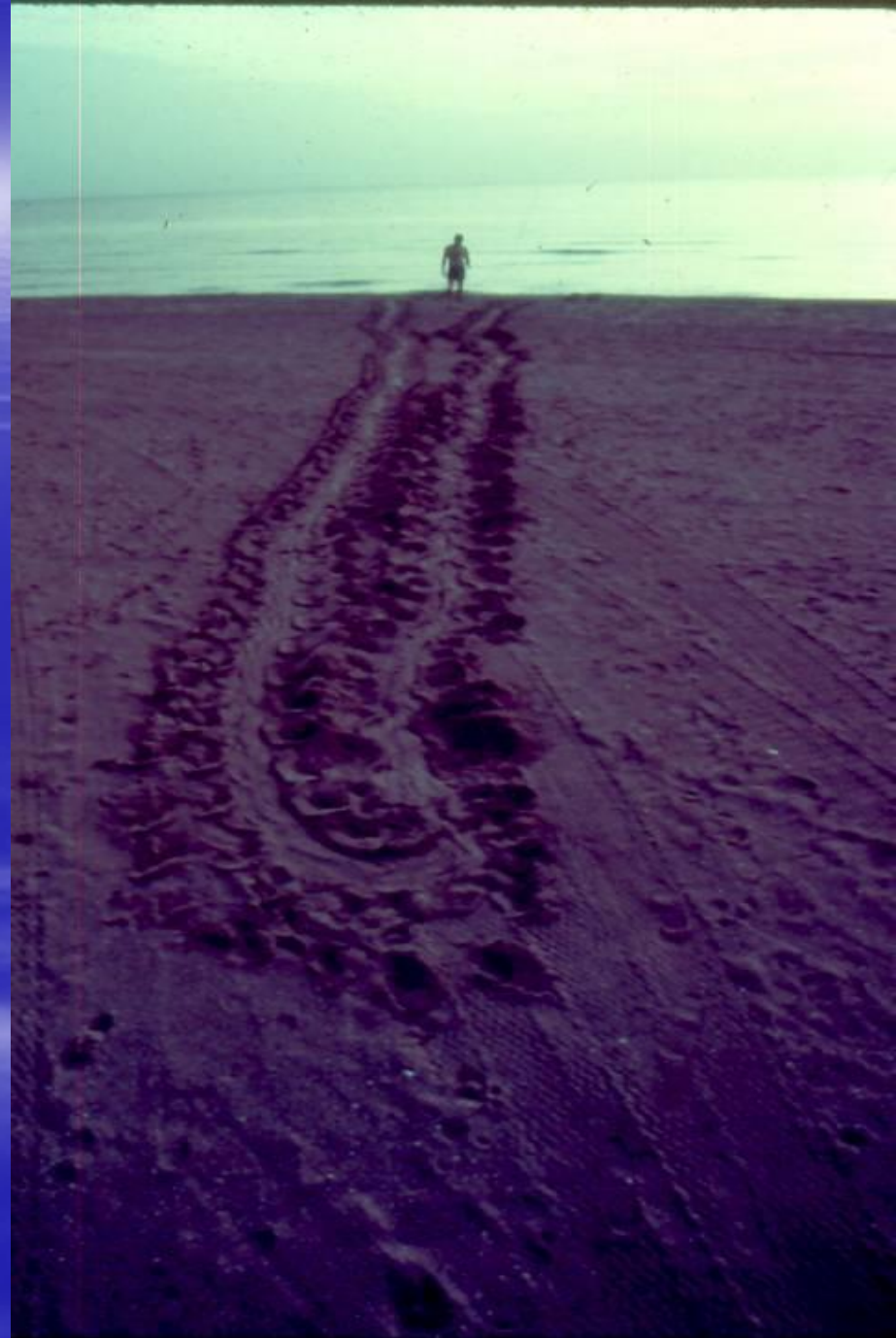
TURTLE TRACKS



TURTLE TRACKS

- False Crawl
- Higher % of false crawls

On developed /urban
beaches





Bal Harbour 2004

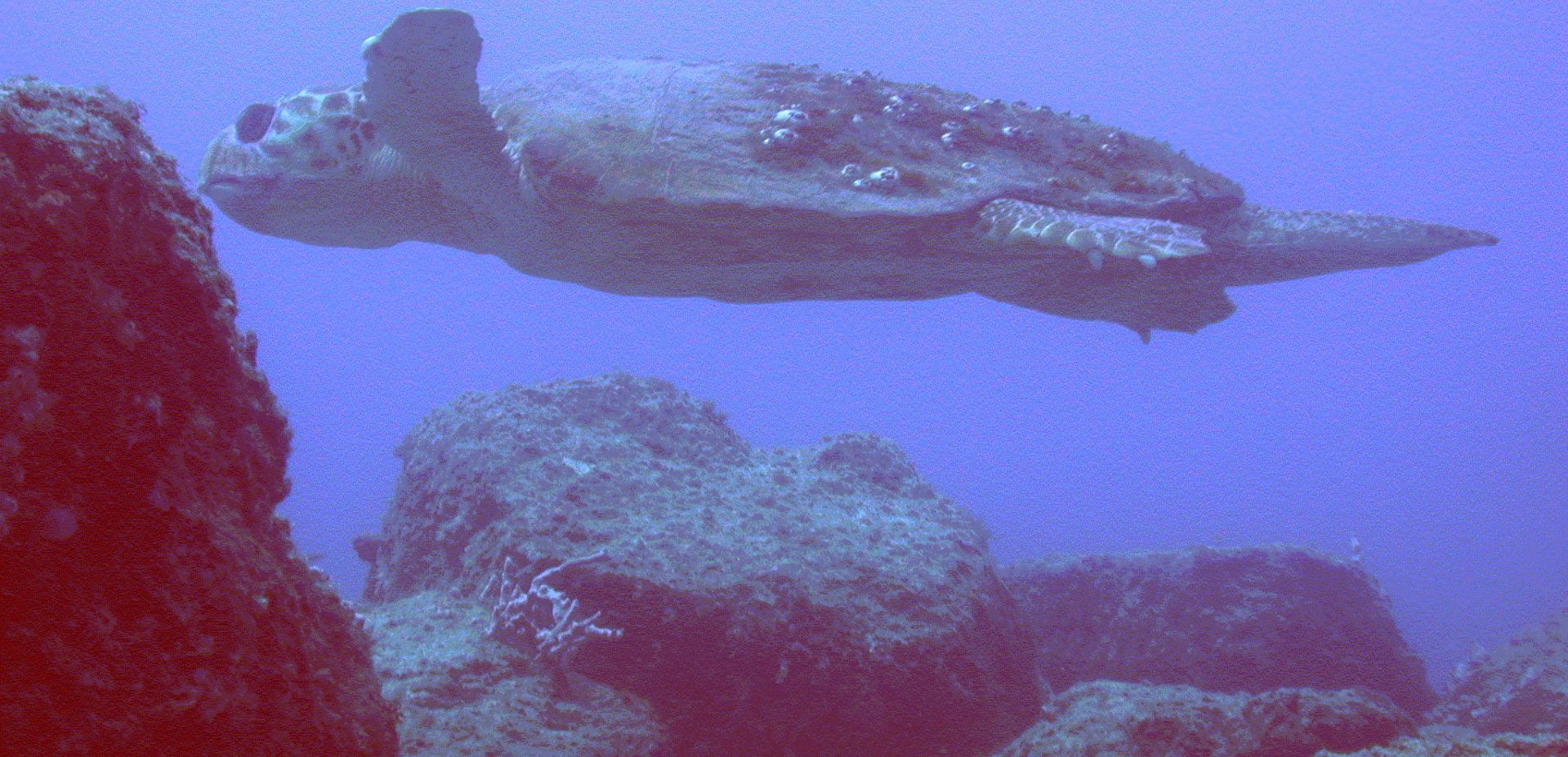


Endangered Green Sea Turtle Nest at Haulover Beach

2002



DADDY LOGGERHEAD



NESTING STAGES

- Loggerhead nesting
- Drop 50 to 180 eggs



They
emerge
from the
nest 55
to 70
days
later.



NESTING STAGES

- Loggerhead momma hides her nest



NESTING STAGES

- Nesting takes from 1hr. To 2 hrs.



Momma **LOGGERHEAD** AT 4th St. South Beach

- The state of Florida is the largest nesting grounds in the Western hemisphere



NESTING STAGE ALMOST FINISHED

- Sea turtles DO NOT return to the nest
- Instincts will guide them . . . Back to nesting beaches



NEST RELOCATION

- FWC guide lines
- No probing
- Only take 1 or 2 at a time
- Do Not rotate eggs
- Count eggs
- Measure nest chamber
- Record G.P.S. Long.& Lat.
- Permitted Staff Only



HATCHERY SYSTEMS - A Natural Setting

- Self-releasing 20 feet wide by 120 feet long
- 300 nests can be relocated to the safe hatchery
- More nests are being left *in situ*
- Locations are Haulover Beach & Crandon Park



Helping Sea Turtle Hatchlings Find Their Way . . .



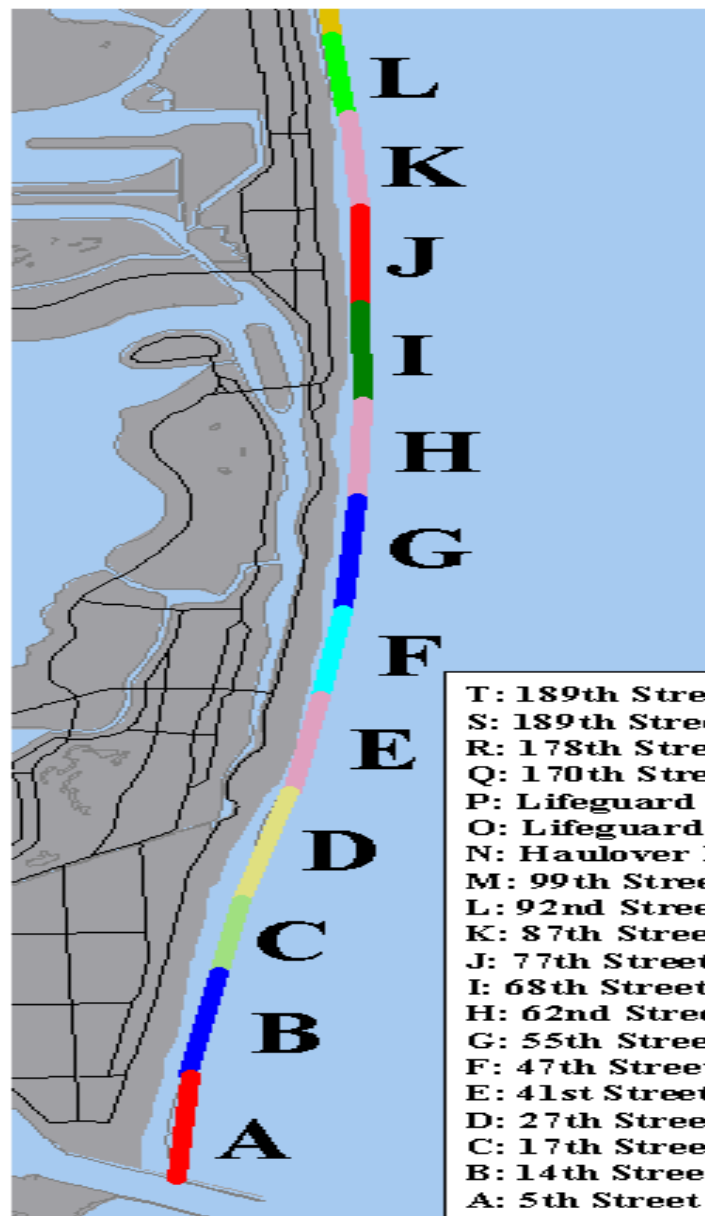


Miami-Dade Turtle Patrol Zones

Golden Beach to Surfside



Surfside to Gov't Cut



- T: 189th Street to County Line
- S: 189th Street to 178th Street
- R: 178th Street to 170th Street
- Q: 170th Street to 159th Street
- P: Lifeguard Hqtr to 159th Street
- O: Lifeguard Hqtr to Haulover Pier
- N: Haulover Pier to 99th Street
- M: 99th Street to 92nd Street
- L: 92nd Street to 87th Street
- K: 87th Street to 77th Street
- J: 77th Street to 68th Street
- I: 68th Street to 62nd Street
- H: 62nd Street to 55th Street
- G: 55th Street to 47th Street
- F: 47th Street to 41st Street
- E: 41st Street to 27th Street
- D: 27th Street to 17th Street
- C: 17th Street to 14th Street
- B: 14th Street to 5th Street
- A: 5th Street to Gov't Cut

Number from 1980 to 2012

YEAR	# NESTS	# EGGS FOUND	# LIVE HATCHLINGS RELEASED
1980	10	1,100	800
1981	31	3,539	2,800
1982	66	7,432	6,505
1983	69	7,970	6,772
1984	69	7,438	6,678
1985	75	8,012	7,200
1986	123	16,946	15,991
1987	129	12,776	10,966
1988	105	11,857	10,682
1989	164	17,073	13,609
1990	185	20,455	16,941
1991	166	18,097	16,294
1992	163	19,627	16,835
1993**	267	22,217	20,751
1994**	288	30,762	26,359
1995**	369	35,126	29,771
1996**	290	29,769	23,726
1997**	258	26,675	20,809
1998**	333	31,046	22,470
1999**	319	33,022	26,580
2000**	311	32,725	26,467
2001**	260	26,511	23,593
2002**	242	27,546	23,697
2003* **	363	36,916	30,014
2004* **	185	20,958	18,520
2005* **	217	22,300	18,882
2006* **	172	18,162	16,926
2007* **	185	18,617	16,876
2008* **	244	22,144	17,112
2009* **	230	26,043	20,301
2010* **	238	22,236	18,042
2011* **	287	30,363	23,135
2012 ***	374	37,443	29,589
TOTALS	6787	702,903	585,693

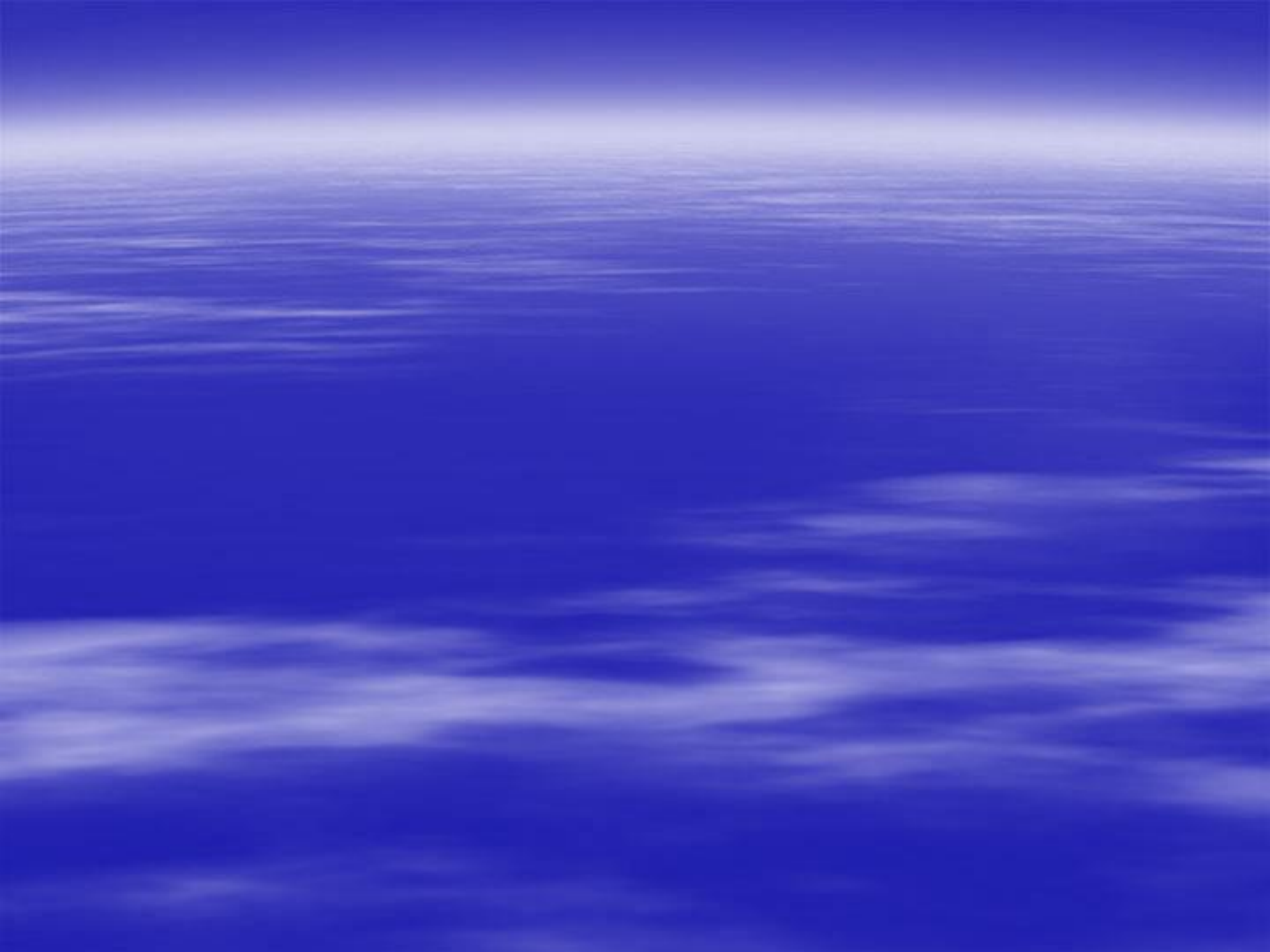
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Totals Combined

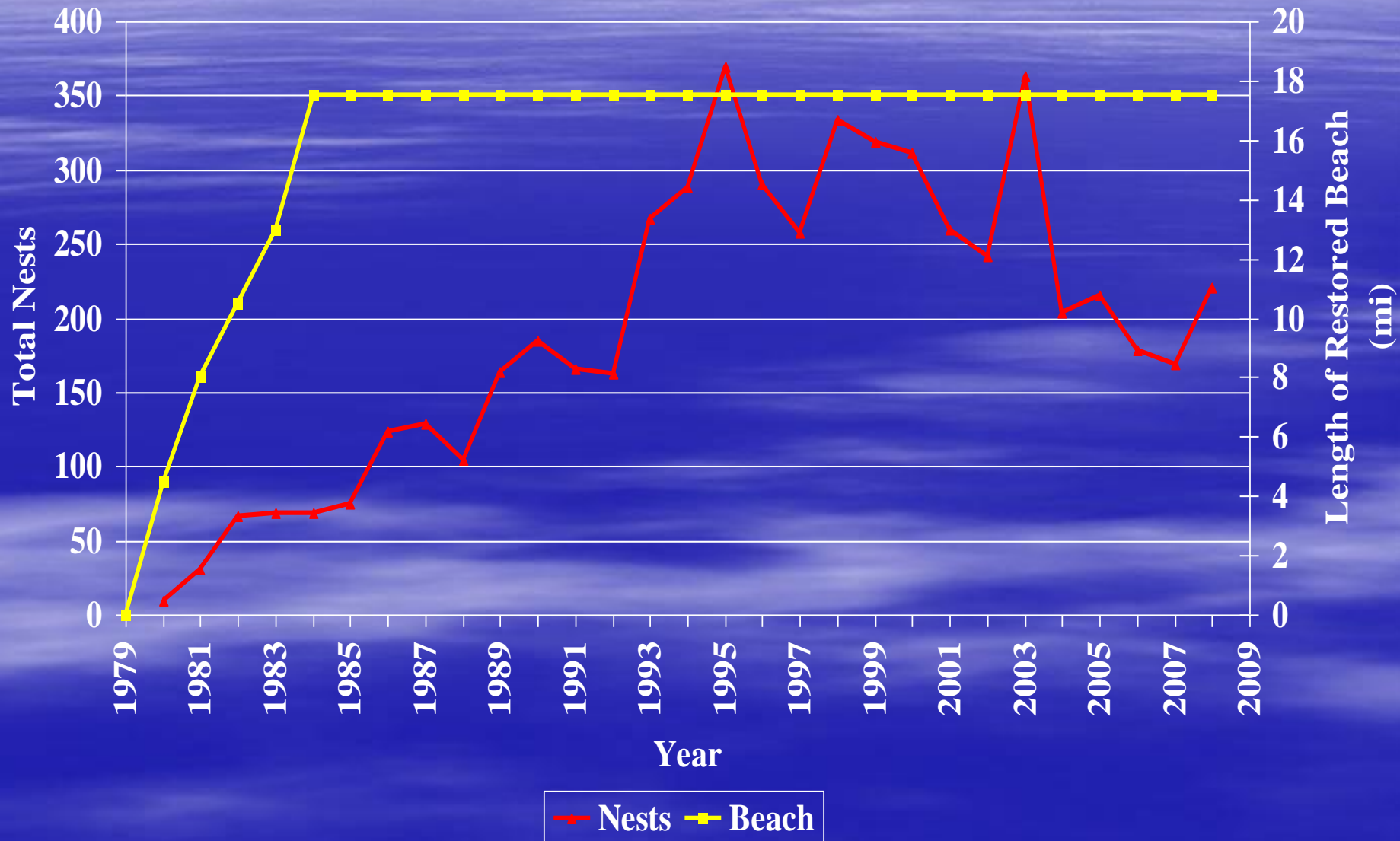
With Miami Beaches

And Crandon Park, Key Biscayne.

Add Golden Beach To Totals



MIAMI-DADE COUNTY SEA TURTLE NESTING ACTIVITY NESTS VS. RESTORED BEACHES: 1979-2008



A mad dash to the ocean!



Leatherback Hatchling



Green Hatchling



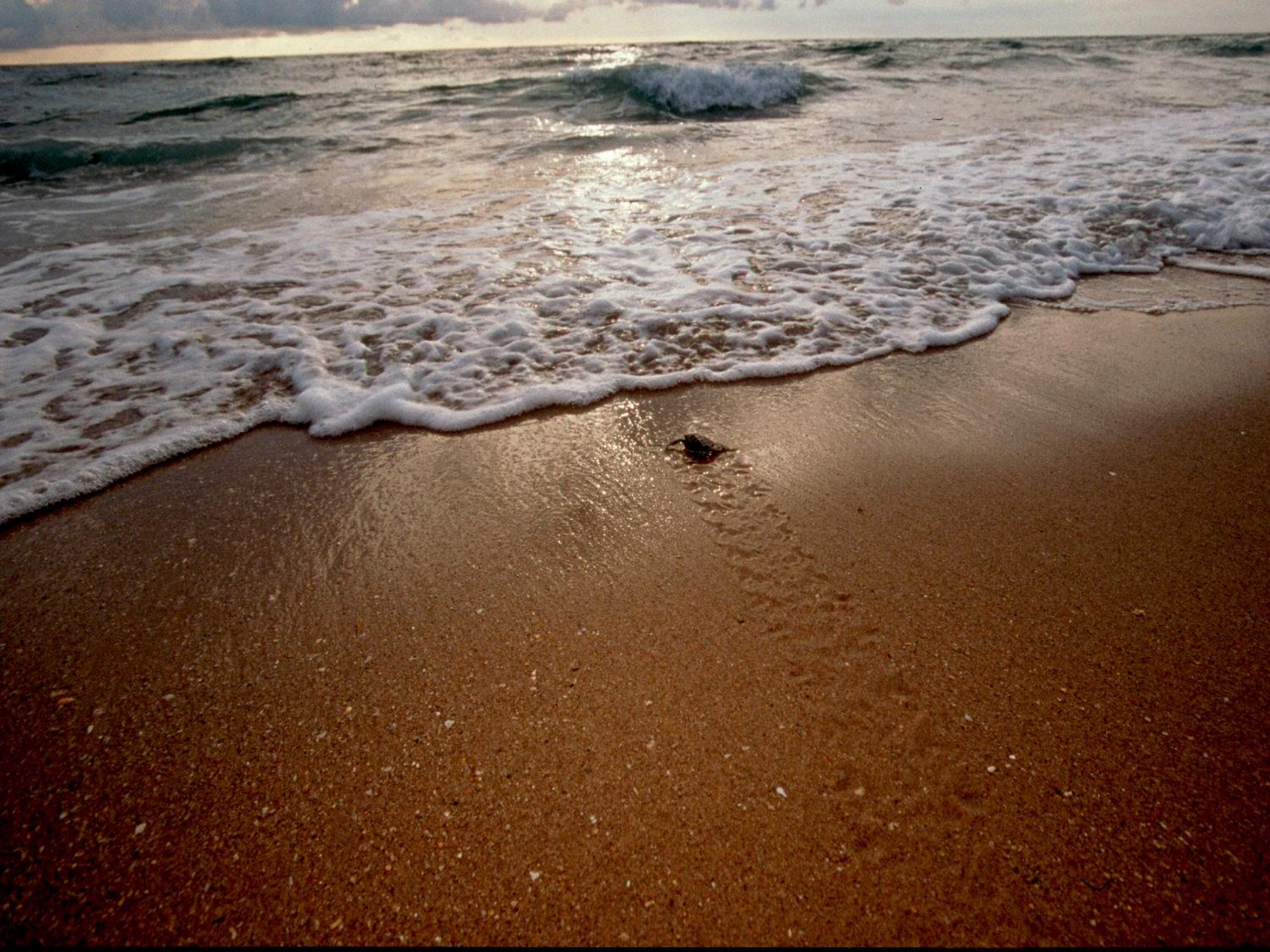
Loggerhead Hatchling



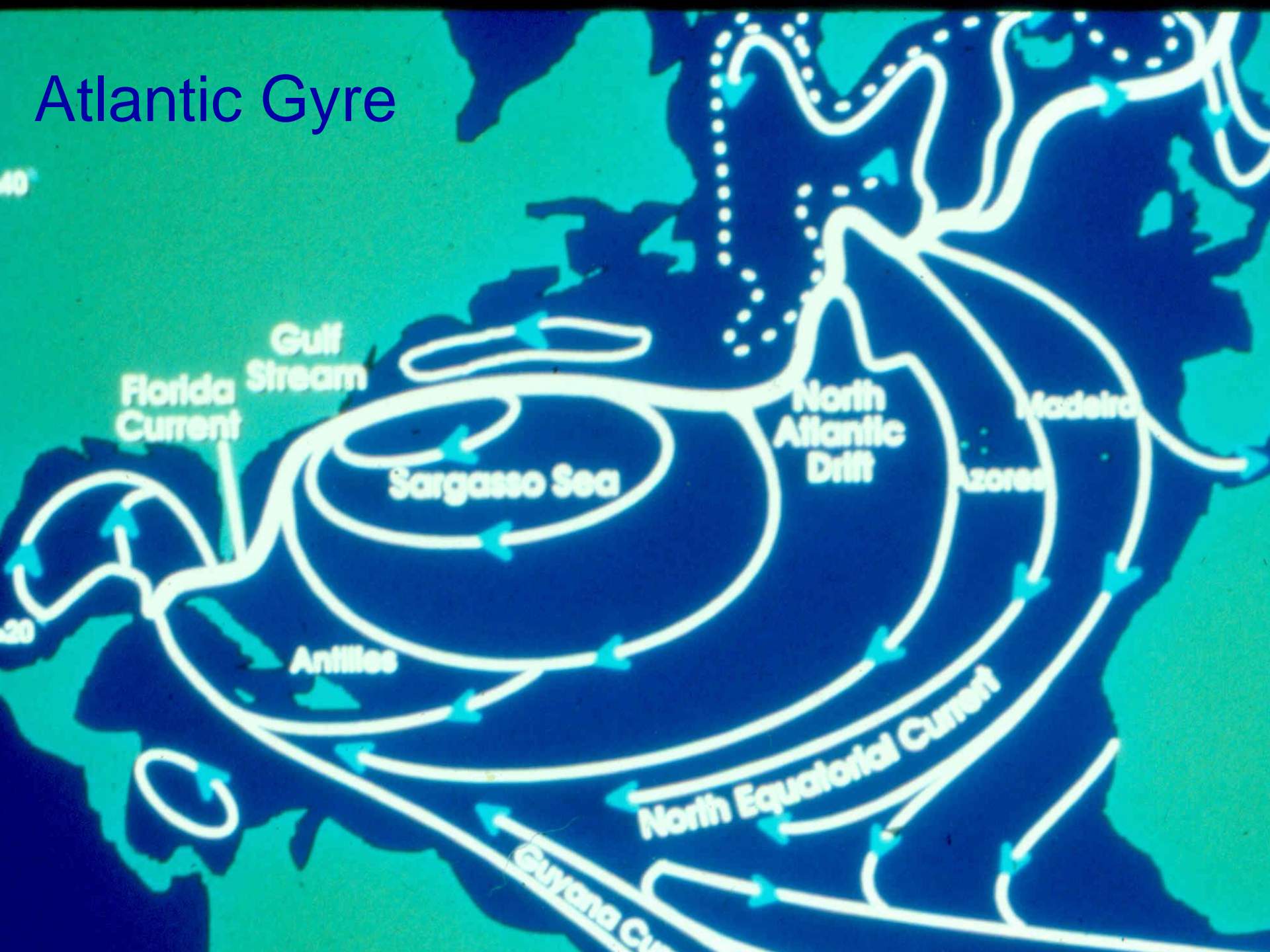
Green and Loggerhead Hatchlings







Atlantic Gyre





Sargassum Seaweed

Threats to Sea Turtle Survival

(1) Natural Mortality

(2) Human Impacts

RACCOONS

Nesting turtle



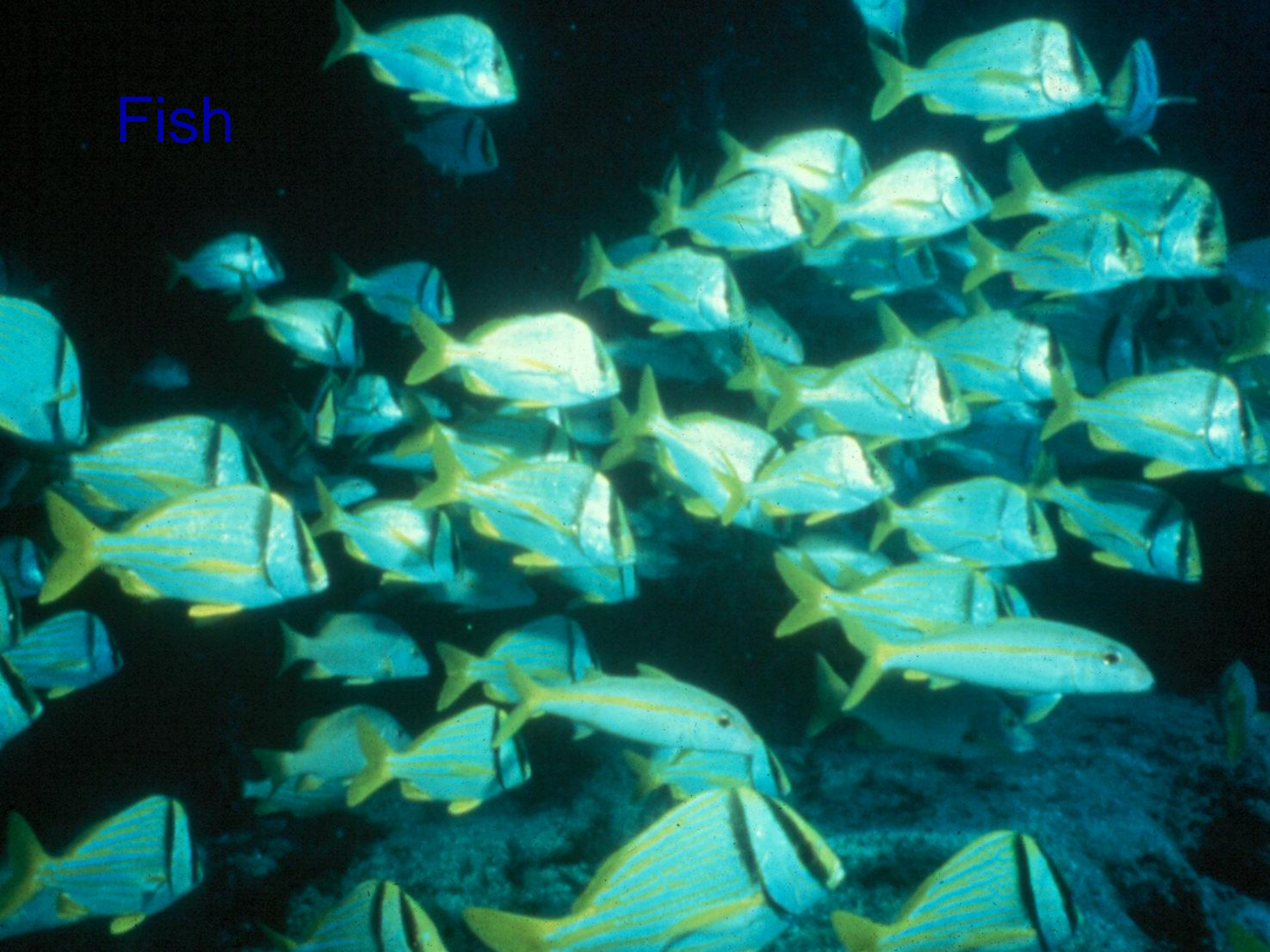
Ants



Ghost crabs



Fish



Beach Erosion



Threats to Sea Turtle Survival

(1) Natural Mortality

(2) Human Impacts

Egg Poaching



Harvesting of Adults for Production



Products made from Turtles

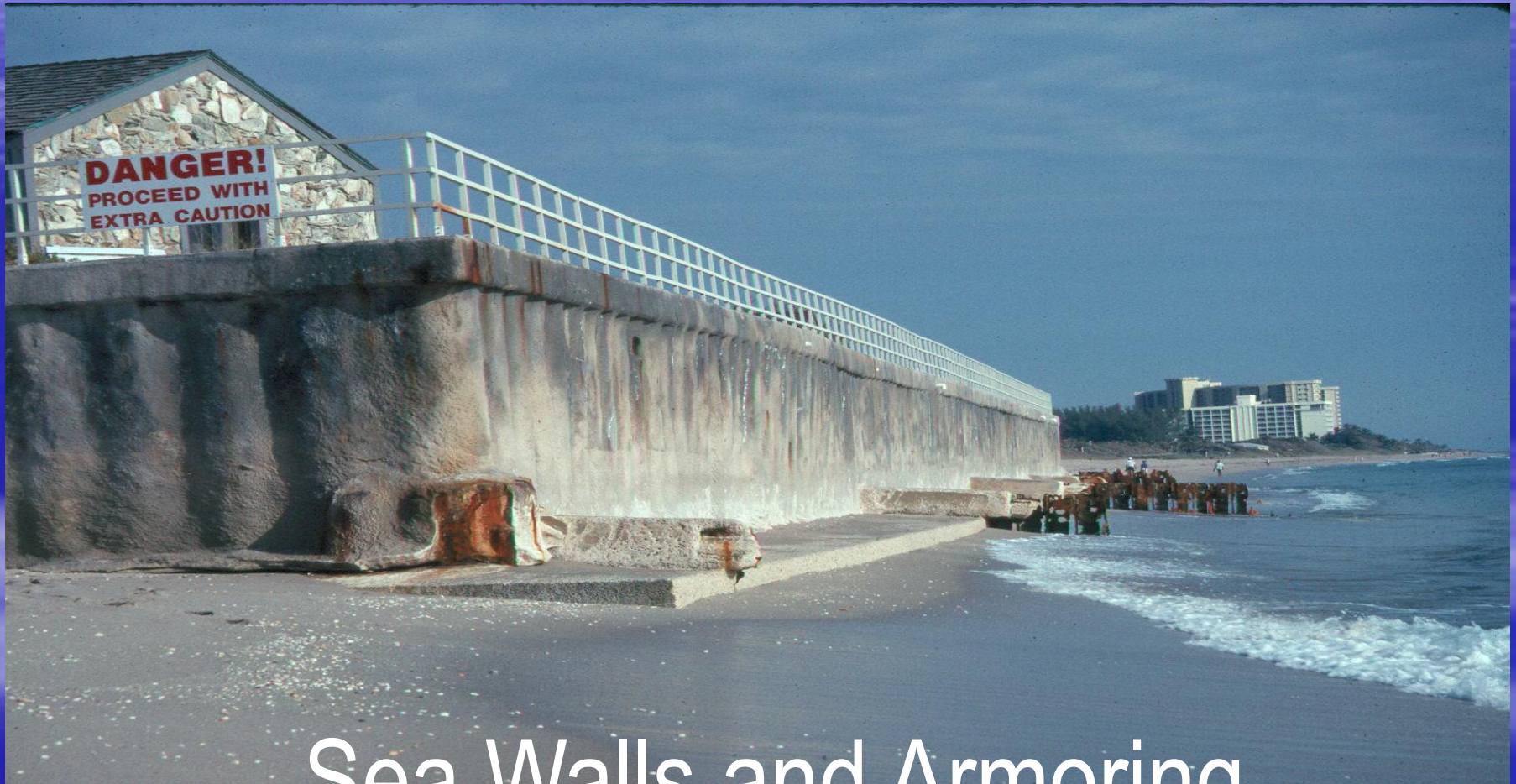
Cosmetics



Food Items



Souvenirs



Sea Walls and Armoring

Beach Renourishment



Miami-Dade County Beaches

Before

After



ALL MIAMI-DADE BEACHES ARE MAN MADE

- Beach Renourishment
- 1,000 feet wide
- Approx. 20 miles
- New projects
- D.E.R.M.
- D.E.P.
- U.S. Corp of Engineers
- M.D.P.&R.

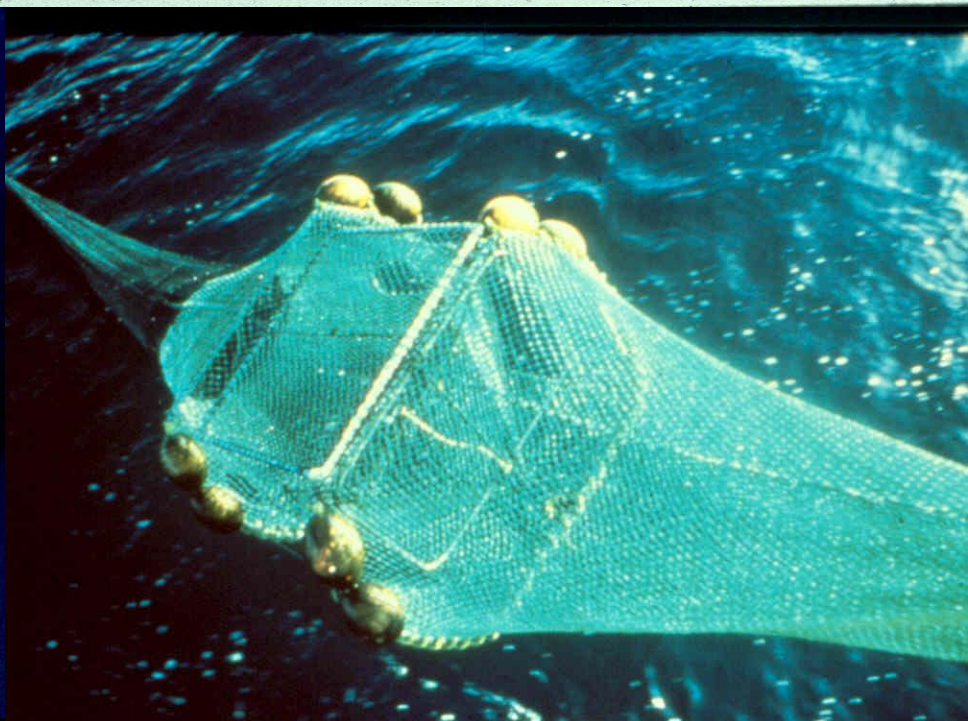
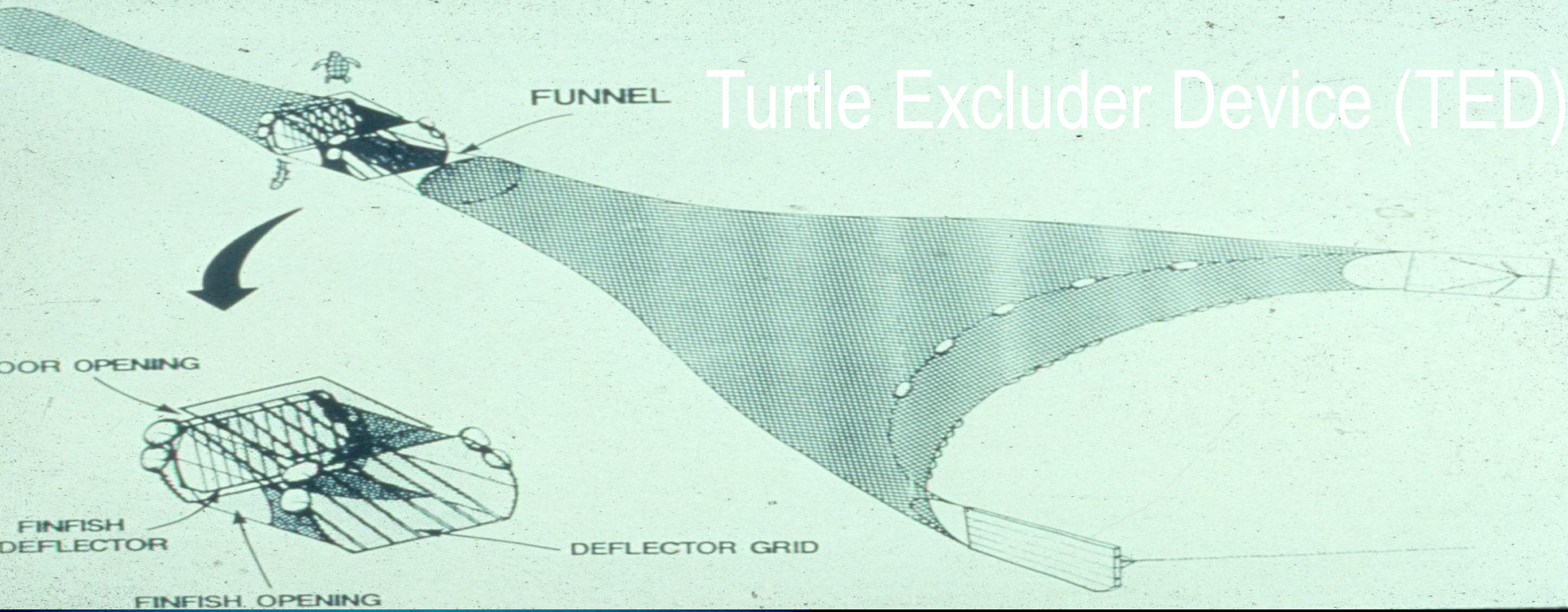




Commercial Fishing



Turtle Excluder Device (TED)



Pollution

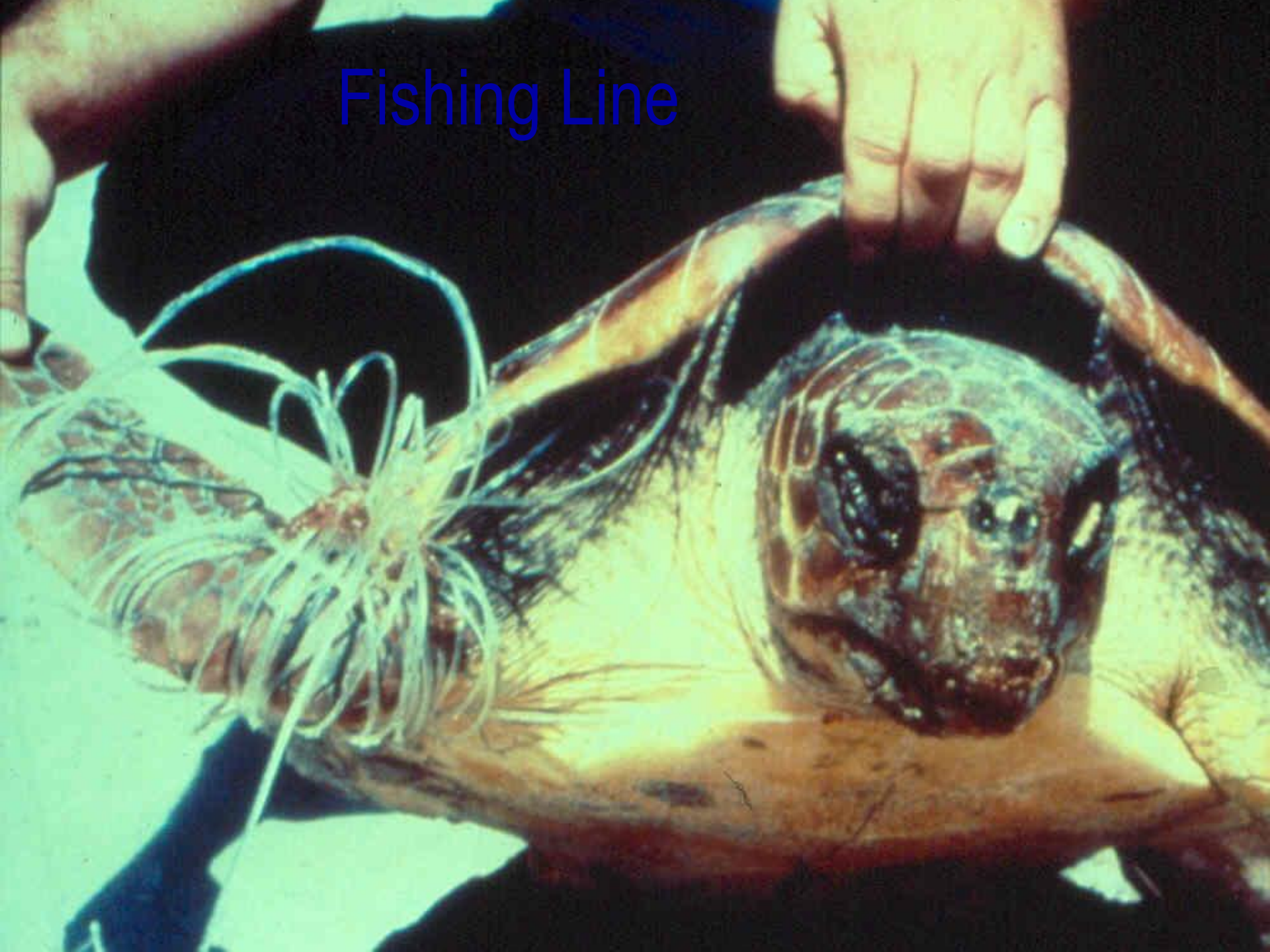


Plastic

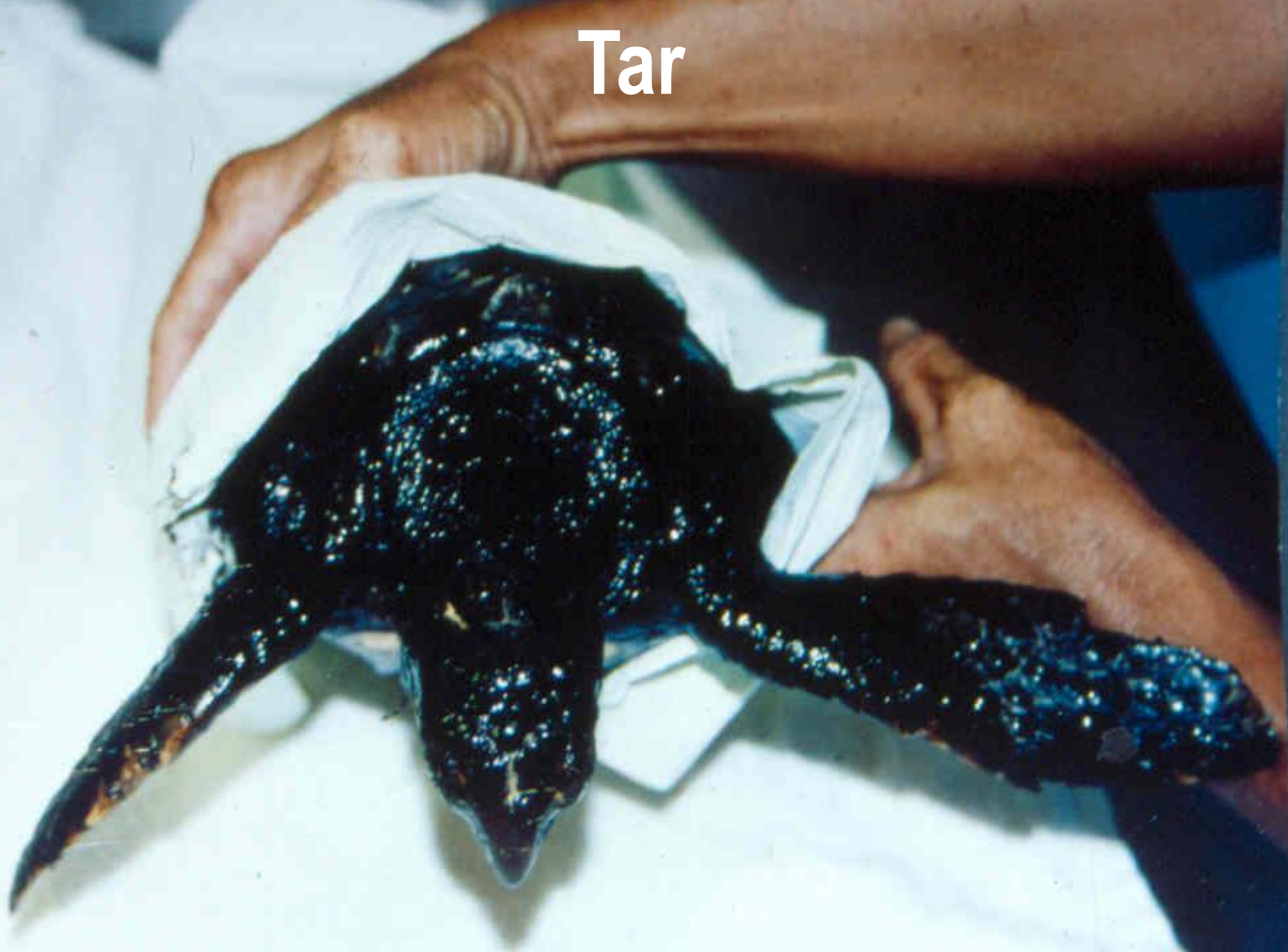


Balloons

Fishing Line



Tar

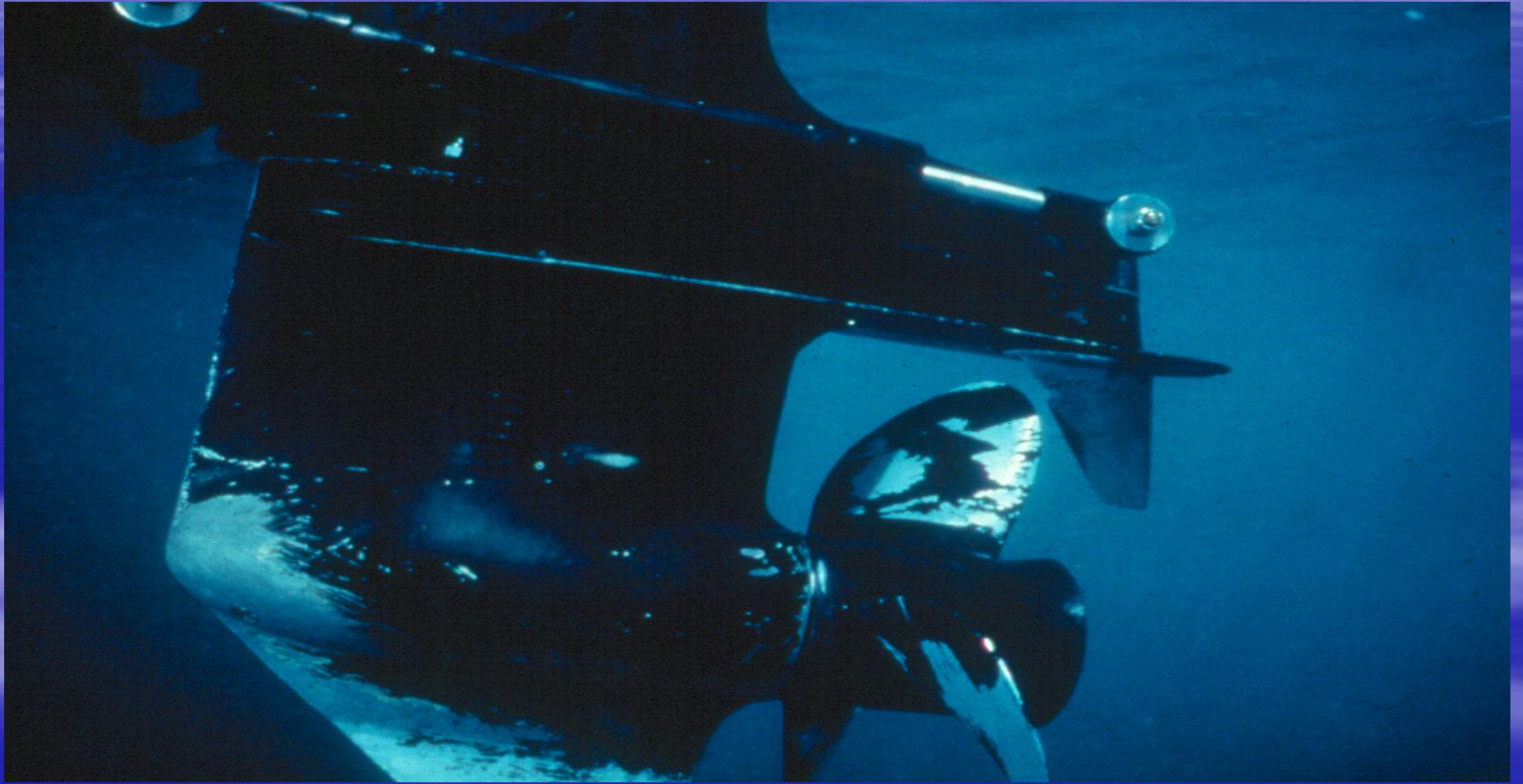




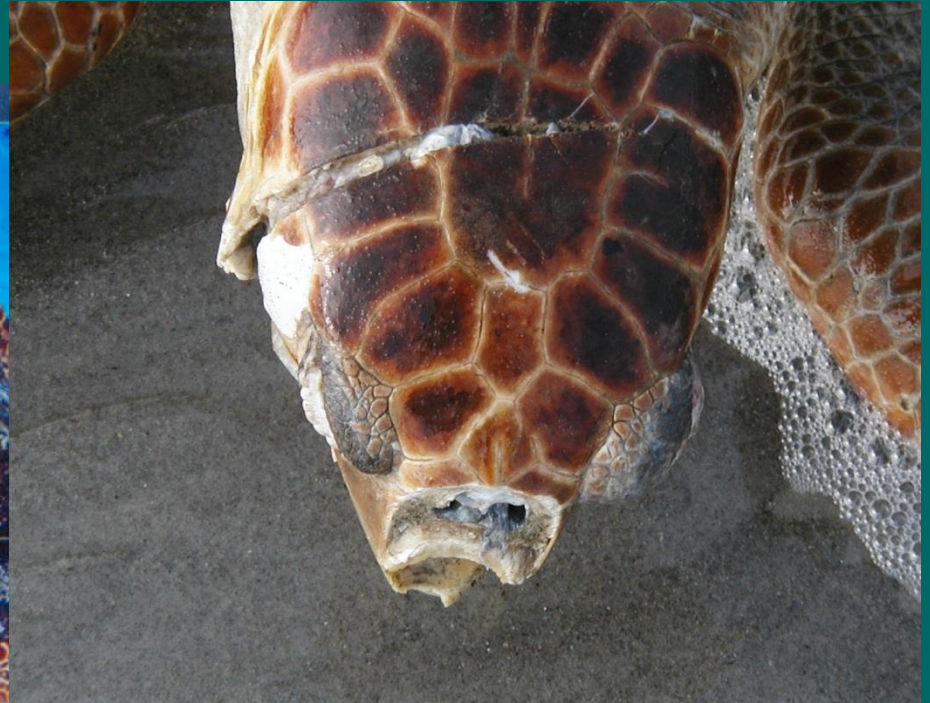
Fibropapillomatosis



Boating



Boatstrikes





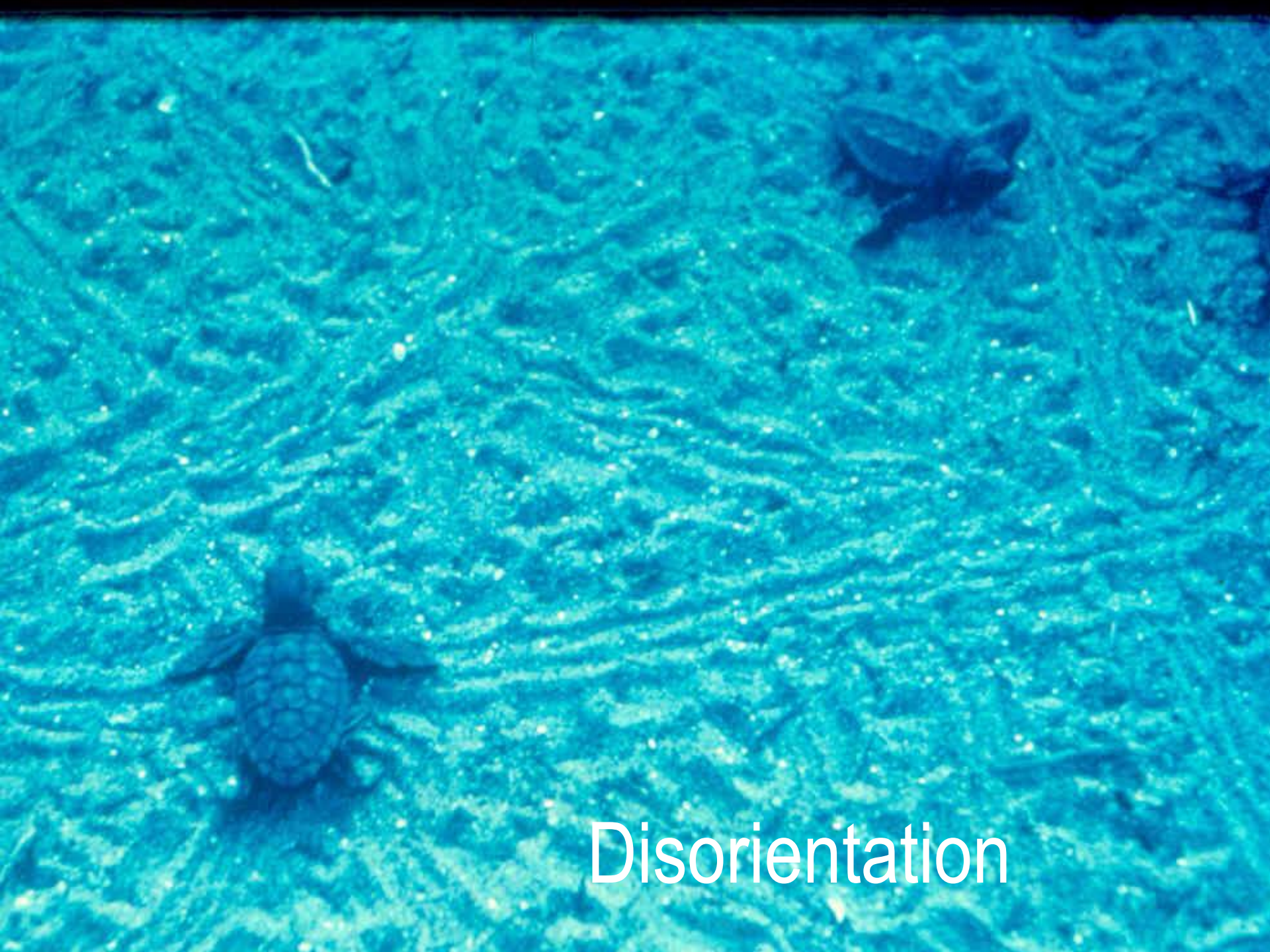
Beach Activity

Beach Lighting



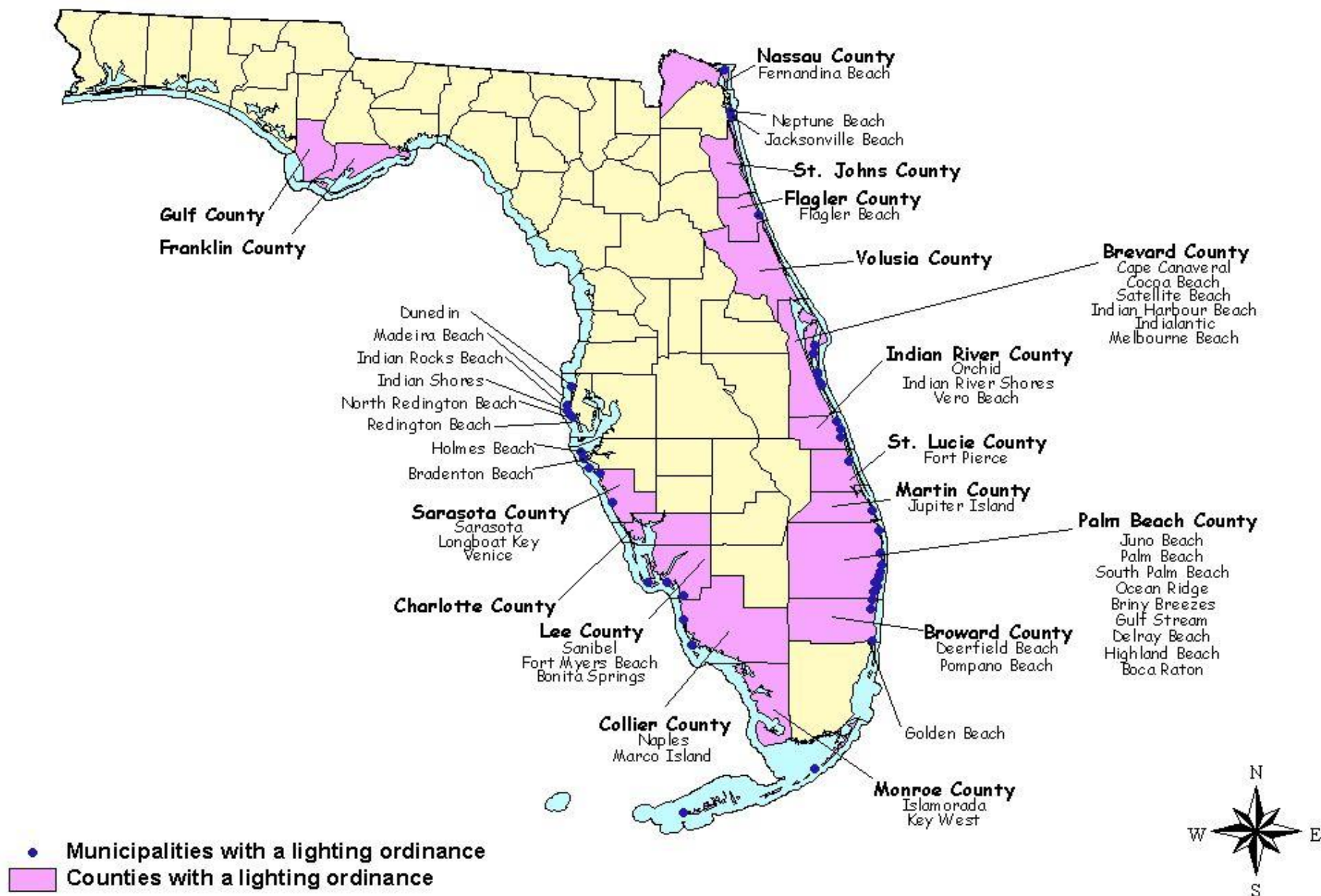


Beach Lighting and Human Activity



Disorientation

Florida Counties and Municipalities With a Lighting Ordinance





If you
want
something
done
right.....



Research



Department of Environmental Resource Management - D.E.R.M. Sand Source Experiments



A large sea turtle is resting on a sandy beach. The turtle is positioned in the lower-left quadrant of the frame, facing towards the right. Its shell is a dark, mottled brown color. The beach is composed of fine, light-colored sand. In the foreground, there are some clumps of dark, wet seaweed. The ocean is visible in the background, with gentle waves breaking onto the shore. The sky is a mix of orange and blue, suggesting a sunset or sunrise. A semi-transparent yellow rectangular box is overlaid on the right side of the image, containing text in a blue, italicized serif font.

*“For Most of The Wild Things On
Earth, The Future Must Depend On
The Conscience Of Mankind”*

- Dr. Archie Carr

CONCERNED BEACH GOERS

- Sea turtle season - April 1st to Oct. 31st
- Chelsea age 7



CONCERNED BEACH GOERS

- State & Federal Laws protect the hatcheries
 - How to help
 - Report any lost ,sick, or dead sea turtles to Life Guards
 - Call local police
 - Stay Away From Nesting

Turtles

Chelsea Age 11



CONCERNED BEACH GOERS

- Every summer time is sea turtle season
- Leatherback at 25 th street
- Chelsea Age 14



Tomorrows Future Today



The Father of Sea Turtle Research

- Dr. Archie Carr N.W.R.
- Worldwide Research





Capt. Jim Hoover
Sea Turtle Permit
Holder 1980 to 2006 on
South Beach 1st Street

Miami – Dade County Parks Sea Turtle's



- Local Research
- Bill Ahern
- 27 Years County Sea Turtle Staff.
- Sea Turtle Permit Holder – 9th Season
- Sea Turtle Permit # 017
- Established in 1980



This presentation was developed with funds from the Florida Fish & Wildlife Conservation Commission Marine Turtle Grants Program. The Marine Turtle Grants Program is based on proceeds from the sale of Sea Turtle License Plates.

A small, dark, patterned turtle hatchling is positioned on a sandy beach. The hatchling is facing towards the upper left of the frame. Its shell is dark with distinct lighter-colored patterns. The sand is light-colored and textured. In the background, slightly to the left of the center, there is a small, white, oval-shaped seashell. The overall scene is brightly lit, suggesting a sunny day.

THE END